

Registration Information

Enrollments are accepted on a first-come, first-served basis.

■ Phone for immediate confirmation of your registration: **(215) 645-4330**

■ When registering by mail, allow approximately two weeks for your return confirmation. Information regarding the course schedule, starting times and the like will be included.

Course Fees: \$550 per person, payable to: University Seminars

Teams of three individuals from the same organization receive a 10% discount. Additional discounts are available to larger groups; phone the seminar administrator at the above number for details. Note: Fees include the cost of all meeting materials and luncheons.

Tax Deduction for all expenses of continuing management education (including registration fees, travel, meals and lodging) undertaken to maintain and improve professional skills (Treas. Reg. 1-162-5 Coughlin vs. Commissioner, 203F2d307).

Cancellations made less than three working days prior to the program's start date are subject to a \$50 cancellation fee. Refunds will not be granted after class has begun. If, for any reason, the program is cancelled, enrollees will be notified and fees refunded in full.

Hotel Accommodations are not included in the registration fee. However, registrants are invited to contact the following hotel, where a limited number of rooms have been reserved for people attending this course. Please make your reservations early, and mention this program for preferred treatment: Stouffer's Valley Forge Hotel, 480 North Gulph Road, **(215) 337-1800**.

Note: We use multiple mailing lists to announce our programs, and it is not always possible to cross-check these lists. As a result, you may receive a duplicate of this announcement. Please pass it on to an interested associate.

College of Commerce and Finance
Villanova University
Bartley Hall, Room 102
Villanova, Pennsylvania 19085
Att: Sally Macbeth

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IMPORTANT DATED MATERIAL.
Please do not delay.

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** → by reference.*

April 81

**Practical knowledge
for computer programmers
and analysts...**

Structured Analysis & Design

A 3-day program
offering a comprehensive
examination of this important subject.

JUNE 8, 9 & 10, 1981 in King of Prussia



Villanova University
College of Commerce and Finance

This 3-day course examines the critical considerations that impact your computer operations every business day.

Seminar outline in brief

Overview of improved system development techniques

- Economics of system development
- New Organizational approaches: chief programmer teams . . . development support libraries . . . structured walk-throughs
- New technical approaches: structured programming . . . structured design . . . top-down development . . . structured testing and quality assurance . . . structured systems analysis

The tools of structured systems analysis and design

- Data flow diagrams
- Data dictionaries
- Defining process logic
- Data analysis and immediate access analysis
- The structured specification
- Structure charts

Development and use of data flow diagrams

- Notation conventions for drawing data flow diagrams
- Partitioning the problem
- Error and exception handling
- Evaluation and refinement of data flow diagrams
- Data flow diagrams for system specification

Development and use of data dictionary

- Entity attributes and dictionary entries
- Data dictionary implementation—manual vs automated
- Application of data dictionary: a tool for structured systems analysis and design . . . a tool for programming, testing and maintenance . . . a tool for users

Workshop—development of a system data flow diagram

Data analysis

- Logical data structures
- Simplification by inspection
- Simplification by normalization
- Importance of third normal form
- Considerations for physical data base design

Immediate access analysis

- Indexes, hierarchies and general inquiry languages
- Types of queries
- Defining use preferences
- Specifying immediate access requirements
- Data structure diagramming
- Data base considerations

Specifying external logic

- Problem of expressing logic
- Decision trees and decision tables
- Structured English and "tight" English
- Pseudocode and Chapin charts

System modeling

- Use of system models

- Building a logical model of the current system
- Building a logical model of the future system
- Physical models and alternatives

Deriving alternative physical designs from the logical model

- Business objectives and systems objectives
- Defining the system boundary
- Physical file considerations
- Personnel subsystem considerations
- Possible alternatives

Workshop—development of detailed data flow diagram for selected physical alternative

Structured design

- Objectives of design
- Designing for changeability
- Module coupling
- Module cohesion
- Scope of control vs scope of effect
- Trade-off between changeability and performance
- Transaction analysis
- Transform analysis
- Design heuristics
- Top-down development

Workshop—development of structure chart from detailed data flow diagram

Packaging and optimization

- Strategies for packaging
- Performance measurement and fine tuning
- Strategies for optimization

Top-down development

- Devising versions from data flow diagrams and structure charts
- Analyst's role in development
- Implementor's role in development

Structured system development methodology

- Review of steps followed in workshops
- Formalization of steps of methodology: the initial study . . . the detailed study . . . defining a "menu" of alternatives . . . getting commitment from user decision makers . . . refining the physical design
- Use of structured system specification in acceptance testing
- Application of structured analysis and design techniques in maintenance
- Heuristics for estimating
- Benefits and problems associated with introducing the new methodology

Especially valuable for

Systems Analysts . . . Systems Programmers . . . Programmer/Analysts . . . Systems Design & Programming Management . . . Data Center Management

One of the following professionals will lead this program:

William Ward

Director, Technical Services

Blue Cross/Blue Shield of Michigan

Mr. Ward has over 15 years of experience in system application development, data processing operations, hardware capacity planning, and system performance analysis.

Currently, Mr. Ward's responsibilities include: capacity planning for hardware and software systems; system measurement and performance and system software maintenance and installation.

Mr. Ward has indepth experience in performance measurement and capacity planning and has lectured both nationally and internationally on the subject.

-or- Mark R. Ramm

President

Ramm & Associates, Inc.

Mr. Ramm, a specialist in the design and evaluation of information systems, brings a wealth of practical knowledge to this important program.

Before forming his own company, Mr. Ramm was Systems Analyst for the Treasury Department, Province of Ontario; Firemen's Fund American Insurance; and UNIVAC. He was also Senior Analyst for the Boeing Company, working in configuration design and Specializing in On-Line information Systems, and Staff Specialist in the Communication and Information Systems Department for the Standard Software Division of Control Data Corporation.

At CDC, Mr. Ramm was also the company representative to the CODASYL Data Base Task Group; the Data Description Language Committee; the End User Task Group; and the Data Base Language Task Group.

-or-

Lawrence M. Holland

Consultant

Data Processing

Mr. Holland has been a consultant to the data processing industry since 1962. Prior to that time, he was associated with IBM Data Centres, where he worked with the Applied Programming Group on software development. He also developed and taught internal and customer-education courses.

A co-founder of Computer Programmers and Analysts, Mr. Holland developed a specific interest in personnel development and productivity. His practice consists of consultation and implementation services to the data processing user, with a special emphasis on productivity improvement.

Structured Analysis & Design

June 8-10, 1981

Stouffer's Valley Forge Hotel

480 North Gulph Rd.

King of Prussia, PA

This 3-day program takes place Monday—Wednesday, 9:00 a.m. to 4:30 p.m. daily.

For additional information about this course, or details about in-company presentations, please contact Ms. Sally Macbeth at (215) 645-4330.

Registration Card

Ms. Sally Macbeth
College of Commerce and Finance
Villanova University
Bartley Hall, Rm. 102
Villanova, Pennsylvania 19085

☐ YES! Please register me for Villanova University's 3-day seminar, *Structured Analysis & Design*, to be held June 8-10, 1981 in King of Prussia.

Name _____

Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

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